

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for analyzing a nucleic acid sample comprising:

 Selecting a first and second sets of nucleic acids from the nucleic acid sample with a first and second nucleic acid affinity matrices, wherein the first and second nucleic acid affinity matrices provides each a different multiplicity of nucleic acid probes, hybridizes with two different set of nucleic acids, and eludes the selected first and second set of nucleic acids from the first and second matrices;

 Labeling the selected first and second sets of nucleic acids with different labels; and

 Detecting the selected first and second sets of nucleic acids based upon the different labels.

2. (original) The method of Claim 1 wherein the first affinity matrix comprise oligonucleotide probes that hybridize with the first set of nucleic acids and the second affinity matrix comprise oligonucleotide probes that hybridize with the second set of nucleic acids.

3. (original) The method of Claim 2 wherein the affinity matrices are collections of beads.

4. (original) The method of Claim 3 wherein the different labels have different colors.

5. (original) The method of Claim 4 wherein the different labels are fluorescent labels.

6. (original) The method of Claim 5 wherein the different labels are fluorescent labels with different emission colors.

7. (original) The method of Claim 6 wherein the detection comprising hybridizing the labeled first and second sets of nucleic acids with an oligonucleotide microarray.

8. (cancelled)

9. (original) The method of Claim 7 wherein the hybridizing is simultaneous.

10. (original) The method of Claim 9 wherein the first and second sets are mixed before hybridization.

11. (original) The method of Claim 7 wherein the detection comprising hybridizing the labeled first and second sets of nucleic acids with a collection of bead array.

12-22 (cancelled)